




UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

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OFFICE OF WATER

**MEMORANDUM**

FROM: Peter C. Grevatt, Director  
Office of Ground Water and Drinking Water 

TO: Regional Water Division Directors

SUBJECT: Key Principles in EPA's Underground Injection Control Program Class VI Rule  
Related to Transition of Class II Enhanced Oil or Gas Recovery Wells to Class VI

Most states have primary enforcement responsibility (i.e., primacy) for the Class II Underground Injection Control program for oil or gas-related injection activities, while EPA Regions currently retain direct implementation authority for the Class VI program in every state. The shared implementation of the UIC program necessitates a clear articulation and common understanding of the potential for transition of enhanced recovery wells from Class II to Class VI, consistent with EPA's Class VI Rule. This memo is intended to emphasize the key principles in EPA's UIC Class VI Rule related to the transition from Class II to Class VI for ER wells that inject carbon dioxide for long-term storage. As Regions work with states on implementation of the Class VI program, I encourage you to assist states in submitting primacy applications for all well classes, including Class VI.

EPA recognizes the importance of geologic sequestration of anthropogenic CO<sub>2</sub> for climate change mitigation. The UIC Class VI Rule was developed to facilitate GS and ensure protection of underground sources of drinking water from the particular risks that large scale CO<sub>2</sub> injection for purposes of long-term storage may pose. The following are key principles related to the transition of ER wells that store CO<sub>2</sub> from Class II operations to the Class VI program:

**1. Geologic storage of CO<sub>2</sub> can continue to be permitted under the UIC Class II program.**

ER wells across the U.S. are currently permitted as UIC Class II wells. CO<sub>2</sub> storage associated with Class II wells is a common occurrence, and CO<sub>2</sub> can be safely stored where injected through Class II-permitted wells for the purpose of oil or gas-related recovery.

**2. Use of anthropogenic CO<sub>2</sub> in ER operations does not necessitate a Class VI permit.**

ER operations can continue to be permitted as Class II wells, regardless of the source of CO<sub>2</sub>. An owner or operator of an ER operation can switch from using a natural source to an anthropogenic source of CO<sub>2</sub> without triggering the need for a Class VI permit.

**3. Class VI site closure requirements are not required for Class II CO<sub>2</sub> injection operations.**

A Class II well that has been used for injection of anthropogenic or non-anthropogenic CO<sub>2</sub> and has been operated within its permit conditions can be closed as a Class II well.

**4. ER operations that are focused on oil or gas production will be managed under the Class II program. If oil or gas recovery is no longer a significant aspect of a Class II permitted ER operation, the key factor in determining the potential need to transition a CO<sub>2</sub> ER operation from Class II to Class VI is the increased risk to USDWs related to significant storage of CO<sub>2</sub> in the reservoir, where the regulatory tools of the Class II program cannot successfully manage the risk.**

The most direct indicator of increased risk to USDWs is increased pressure in the injection zone related to the significant storage of CO<sub>2</sub>. Increases in pressure with the potential to impact USDWs should first be addressed using tools within the Class II program. Transition to Class VI should only be considered if the Class II tools are insufficient to manage the increased risk.<sup>1</sup>

**5. The Class II and Class VI directors should work together to address the potential need for transition of any individual operation from a Class II to a Class VI permit.**

The Class II program director (in most cases a state official) will have the relevant data on pressure and volume of CO<sub>2</sub> injected into Class II ER operations, which will influence any transition decision. EPA encourages the Class II director to contact the Class VI director where he/she believes the risk has changed as a result of significant storage of CO<sub>2</sub> in the reservoir.

**6. The best implementation approach is for states to administer both the Class II and the Class VI UIC programs.**

EPA encourages states to apply for primacy for all well classes, including Class VI. Based on our conversations with states, in most cases, states who are approved for primacy for the Class VI program are expected to administer the program through their oil and gas program.

The Office of Ground Water and Drinking Water is currently working with the U.S. Department of Energy, state associations, EPA Regions and stakeholders to finalize technical guidance focused on risk factors discussed in the Class VI Rule at 40 CFR 144.19. As we complete the final guidance, we will work to ensure that these key principles remain clear.

Please contact me or have your staff contact Ron Bergman at 202-564-3283 if we can be of assistance to you on these or other UIC program issues.

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<sup>1</sup> The key regulation, "Transitioning from Class II to Class VI," codified at 40 CFR 144.19, states that owners or operators that are injecting carbon dioxide *for the primary purpose of long-term storage* into an oil and gas reservoir must apply for and obtain a Class VI GS permit *when there is an increased risk to USDWs compared to Class II operations*.